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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/751,534

01/06/2004

Roger A. Fratti

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EXAMINER

AHN, SAM K

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

10/29/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/751,534

Applicant(s)

FRATTI, ROGER A.

Examiner

Sam K. Ahn

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 8-12 and 15-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8, 12 and 20-28 is/are allowed.
- 6) ☒ Claim(s) 1-5, 9-11 and 15-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see p.9-10, filed 08/13/07, with respect to the rejection(s) of claim(s) 1-7,9-11 and 13-19 under 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of RF3730 Limiting Amp – Serial AT 3.125Gbps, RF Micro-Devices (cited in the IDS, hereinafter, RF3730) and Ichitsubo et al. US 2004/0012446 A1 (Ichitsubo).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5,9-11 and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over RF3730 Limiting Amp – Serial AT 3.125Gbps, RF Micro-Devices (cited in the IDS, hereinafter, RF3730) in view of Ichitsubo et al. US 2004/0012446 A1 (Ichitsubo).

Regarding claim 1, RF3730 teaches a data receiver (see Fig.1 on page 13-4) comprising: a limiting amplifier comprising a plurality of amplifier stages (see input of the first amplifier coupled to C1 and C2 and output of the third amplifier coupled to Out+ and Out-, and note first paragraph of Limiting Amplifier having

plural stages); a peak detector measuring a voltage level of an input to said limiting amplifier (level detect block measuring the signal that is also provided to the limiting amplifier, wherein one skilled in the art would recognize that the level detect element measures signals of voltage levels, note pin 2 and 4 on page 13-3 receiving input voltages which is coupled to the level detect block), an input to said peak detector being connected directly to an input of a first one of said plurality of amplifier stages of said limiting amplifier (see Fig.1, input to level detect block connected directly to input of the first amplifier); wherein a mismatch in impedance of transmission lines used between said input to said peak detector and said input of said first one of said plurality of amplifier stages of said limiting amplifier is minimized (note p.13-6 wherein the input to the IC, pin 2 and pin 4 receiving an input signal, which is coupled to the first amplifier and the level detect block in Fig.1 is impedance matched by placing capacitors (note page 13-6) such that said peak detector appears as a load with insignificant capacitance with respect to an extremely high data rate of a signal on said input (receiving signals of high data rate of 3.5Gbps, note first paragraph on page 13-1, passing through the capacitors C1 and C2, hence, one skilled in the art would recognize that the level detect block would appear as a load with insignificant capacitance with respect to the high data rate).

However, RF3730 does not explicitly teach wherein a signal on said input is at least an OC 192.

Ichitsubo teaches a system (see Fig.1) of receiving an incoming signal of at least an OC 192 data rate (note paragraph 0004 receiving signals of tens of gigahertz) and impedance matching of transmission lines and having capacitors (106) thus circuitries on the right side of the capacitors appear as a load with insignificant capacitance with respect to at least an OC 192 data rate of a signal on said input. Hence, Ichitsubo teaches on the right side of the capacitors appear as a load with insignificant capacitance with respect to at least an OC 192 data rate of a signal on said input, the received signal is not limited to 3.5Gbps, but also supports tens of gigahertz. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to incorporate the teaching of Ichitsubo in the system of RF3730 of further supporting increased data rate of the received signal as is desired by the industry (note paragraph 0004).

Regarding claim 2, RF3730 further teaches an impedance of said transmission line is between 33 ohms and 75 ohms throughout a frequency range of operation (50 ohms, see Fig.2).

Regarding claim 3, RF3730 further teaches wherein said frequency range of operation is between 10 MHz and 25 GHz (4 GHz, see under Features on page 13-1).

Regarding claim 4, RF3730 further teaches a latch circuit connected to an output of said peak detector (LOS ALARM performing a switching operation between logic high and logic low, hence one skilled in the art would recognize that LOS ALARM performs the function of a latch circuit).

Regarding claim 5, RF3730 further teaches said peak detector and said latch circuit form a loss of signal circuit detecting a loss of signal input to said limiting amplifier (level detect block and LOS ALARM, Loss-of-Signal Alarm block, note page 13-4).

Regarding claim 9, the claim is rejected as applied to claim 1 with similar scope.

Regarding claim 10, the claim is rejected as applied to claim 2 with similar scope.

Regarding claim 11, the claim is rejected as applied to claim 3 with similar scope.

Regarding claim 15, the claim is rejected as applied to claim 4 with similar scope.

Regarding claim 16, the claim is rejected as applied to claim 5 with similar scope.

Regarding claim 17, the claim is rejected as applied to claim 1 with similar scope.

Regarding claim 18, the claim is rejected as applied to claim 2 with similar scope.

Regarding claim 19, the claim is rejected as applied to claim 3 with similar scope.

Allowable Subject Matter


3. Claims 8,12 and 20-28 are allowed.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Ahn whose telephone number is (571) 272-3044. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sam K. Ahn
Patent Examiner

10/26/07